THIRST FOR OIL AND THE KEYSSTONE XL PIPELINE

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The cry that echoed in August 1859 through the narrow valleys of western Pennsylvania—that the crazy Yankee, Colonel Drake, had struck oil—set off a great oil rush that has never ceased in the years since. And thereafter, in war and peace, oil would achieve the capacity to make or break nations, and would be decisive in the great political and economic struggles of the twentieth century. But again and again, through the never-ending quest, the great ironies of oil have been made apparent. It comes with a price.1

I. INTRODUCTION

The dynamics surrounding the approval of the Keystone XL pipeline symbolize the nation’s abstruse approach toward a national energy policy. While the pipeline fits snugly into such a policy, it is problematic to suggest that we either truly have or operate under any fully consistent holistic national energy policy. For many decades now, presidents have touted the ideal of energy independence amidst myopic efforts to craft—at best—aspects of such a policy.2 Today, as the country has just witnessed two presidential candidates clash over energy policy, “[t]he pipeline has become a powerful symbol and political pawn this election year.”3 “For the Obama Administration, moving towards the goal of energy independence has been a clear priority since day one.”4 The Keystone pipeline system, stretching from Al-

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berta, Canada through the Midwest to Texas, ostensibly furthers this goal of energy independence. The pipeline could provide U.S. oil producers with enhanced access to U.S. refineries, while simultaneously securing access to oil from North America instead of from overseas.

Yet today's energy policy rhetoric unfortunately perpetuates the United States' failure to develop an institutional structure capable of crafting a consistent, coherent, meaningfully relevant, and implementable policy guiding our use of fossil fuels. This arguably has become evident with the United States Department of State's struggle with the Keystone XL pipeline project. The project has prompted a wide-ranging dialogue with sound bites about energy independence, calls for increased pipeline capacity feeding into Gulf Coast region refineries, and more focused conversations about the Gulf Coast refineries' need for a stable supply of heavy crude oil to support potentially declining amounts of imported crude from Mexico and Venezuela. Each of these issues, as well as many others, demands an acute appreciation of the complexity of energy policy, both domestic and foreign, but little about the current process for assessing the project suggests that these issues are likely to receive sufficiently detailed and balanced scrutiny.

This Article, therefore, illustrates the difficulty inherent in assessing the merits of any potential international oil pipeline, and it offers a brief suggestion for improvement. Part II first reviews the Keystone XL project proposal, and Part III briefly reviews the potential for increased crude oil from the Canadian tar sands. Then, Part IV explores the issues and problems embedded in any effort to assess whether the Keystone XL proposal serves the "national interest." Part IV encourages a dialogue about the appropriate role and expertise of the State Department, and the department's ability to assess complex energy, environmental, and resource issues. Finally, Part V suggests the Department of Energy might be institutionally more capable than the State Department at providing the necessary determination regarding what proposed pipelines are in the "national interest."

II. THE KEYSTONE XL PIPELINE

When TransCanada filed its application to expand its cross-border oil pipeline operations in the fall of 2008, it triggered a unique federal approval process and a national dialogue on climate and en-

5. See infra notes 9-35 and accompanying text.
6. See infra notes 36-43 and accompanying text.
7. See infra notes 44-105 and accompanying text.
8. See infra notes 106-07 and accompanying text.
energy policy. Unlike natural gas pipelines that require a certificate from the Federal Energy Regulatory Commission ("FERC") before construction and operation can begin, FERC regulates interstate oil pipelines under a less structured process not requiring a certificate for construction. If, however, an oil pipeline will cross a U.S. border, it must first receive a Presidential Permit. Decades ago, the executive branch asserted the authority to approve international projects, and then delegated that authority to the State Department for determining whether a proposed project would serve the “national interest.”

Case law beginning in 2009 has either validated executive authority to issue such permits or concluded that the issue is non-justiciable.

TransCanada triggered this process when it requested a permit to transport 700,000 barrels per day (“bpd”) of Western Canadian Sedimentary Basin crude from a supply hub near Hardisty, Alberta to Cushing, Oklahoma and southeastern Texas. The proposal included

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11. PARFOMAK ET AL., supra note 9, at 6.


1,384 miles of pipeline in the United States and approximately 327 miles in Canada.\footnote{keystonepipeline-xl.state.gov/documents/organization/182010.pdf. If market conditions warrant, TransCanada indicated it could increase the capacity of the line to 830,000 bpd by altering the pumping capacity at the 30 electric pump stations along the way. \textit{Id.} at ES-2. The crude consists of a “clay, sand, water, and bitumen” and would be mined by heating, liquefying, and pumping the bitumen from the tar sands in Alberta; then it would be processed into synthetic crude and diluted bitumen available for transport. \textit{Id.}}\footnote{\textit{Id.} at ES-2.} It proposed adding to the existing Keystone project, which already can deliver up to 590,000 bpd of crude through its mainline segment that extends from the Canadian border to Wood River and Patoka, Illinois, as well as its Cushing Extension running from Steele City, Nebraska to Cushing, Oklahoma.\footnote{TransCanada Keystone Pipeline, L.P., Application of TransCanada Keystone Pipeline, L.P. for a Presidential Permit Authoring the Construction, Connection, Operation, and Maintenance of Pipeline Facilities for the Importation of Crude Oil to Be Located at the United States-Canada Border (May 4, 2012), available at http://keystonepipeline-xl.state.gov/documents/organization/188504.pdf.} A critical aspect of the State Department’s process involved the preparation of an environmental document,\footnote{\textit{Parfomak et al., supra note 9, at 7.}} pursuant to the National Environmental Policy Act (“NEPA”),\footnote{The State Department released a draft EIS in Spring 2010, supplemented with another draft the following Spring and then a final during the Summer of 2011. \textit{See New Keystone XL Pipeline Application, U.S. Dep’t St., http://keystonepipeline-xl.state.gov} (last visited Aug. 25, 2012) (providing links to the various environmental impact statements under “Project Documents” and “Archived Documents”).} before it could render its “national interest” determination. Therefore, the State Department prepared an Environmental Impact Statement (“EIS”).\footnote{Environmental Impact Statements; Notice of Availability, 73 Fed. Reg. 2027, 2027 (Jan. 11, 2008) (providing notice of availability of Final Environmental Impact Statements). Following questions about the efficacy of the environmental review, the Department’s Inspector General Office found no irregularities in the preparation of the EIS. \textit{Harold W. Geisel, U.S. Dep’t of State & The Broad. Bd. of Governors Office of the Inspector Gen., Special Review of the Keystone XL Pipeline Permit Process 1 (2012), available at http://www.hsdl.org/?view&did=700233.}}

Once the State Department completed its EIS,\footnote{Pub. L. No. 112-78, 125 Stat. 1280 (codified in scattered sections of 26 U.S.C.).} the Department postponed its decision in order to address concerns by the State of Nebraska and others about the potential environmental effects of routing the pipeline through the Nebraska Sand Hills region and over the Ogallala Aquifer. The Keystone XL project quickly became embroiled in energy policy politics. Congress added a provision to the Temporary Payroll Tax Cut Continuation Act of 2011\footnote{Pub. L. No. 112-78, 125 Stat. 1280 (codified in scattered sections of 26 U.S.C.).} requiring that the Secretary of State issue a permit within sixty days unless the President determined the project was not in the “national interest.”\footnote{Temporary Payroll Tax Cut Continuation Act of 2011, Pub. L. No. 112-78, § 501, 125 Stat. 1280 (codified in scattered sections of 26 U.S.C.).} Pres-
ident Barack Obama responded by rejecting the application, asserting that sixty days was insufficient time to render a reasoned decision. This decision intensified the political dynamic surrounding the U.S.-Canada relationship, the debate regarding the entire pipeline project, and the rhetoric surrounding the United States' energy policy. American Petroleum Institute president Jack Gerard spoke favorably about the pipeline and raised the mantle of energy security by stating, "The opportunity here is too great; the stakes too high; the shared imperative for both countries too urgent." Others pondered whether the pipeline might affect gasoline prices. Congress reacted by debating whether to mandate favorable action on the pipeline.

Meanwhile, TransCanada navigated the political rhetoric by negotiating an alternative route through Nebraska and deciding to split its proposal into two independent pipeline projects. A southern segment, the Gulf Coast Project, would transport up to 830,000 bpd of crude from Cushing, Oklahoma to various Gulf Coast refineries. Its wholly American origin and termini avoid any requirement for State Department approval. A separate northern segment, requiring State Department approval, would cross the international border in Phillips County, Montana, avoid the Nebraska Sand Hills, and then terminate by joining existing Keystone system at Steele City, Nebraska. In May 2012, when TransCanada filed its new application for the northern segment, it noted that the project would have the capacity to transport approximately 830,000 bpd and hoped to commence construction in early 2013.

The Obama Administration has moved swiftly on the southern segment, while responding cautiously toward the company's northern proposal. On March 22, 2012, President Obama issued a memorandum designed to facilitate environmental review of the pipeline's

28. See VANN ET AL., supra note 12, at 1 (noting that individual states regulate domestic pipelines).
30. Id. at 9.
southern leg. The ostensible purpose of an independent southern segment would be to remove the Midwest bottleneck of heavy Canadian crude and Bakken formation oil. Pipeline opponents hoped to retard the review by, among other things, questioning the application of the expedited process for constructing crossings over various bodies of water. So far, the United States Army Corps of Engineers, in charge of reviewing the pipeline crossings, supports allowing the streamlined process. The Sierra Club and others unsuccessfully sought review of that decision. For the northern segment, the Obama Administration is preparing a supplemental EIS, which will examine TransCanada’s proposed new route around the Nebraska Sand Hills, extending from the U.S.-Canadian border at Phillips, Montana to Steele City, Nebraska.


35. Notice of Intent to Prepare a Supplemental Environmental Impact (SEIS) and to Conduct Scoping and to Initiate Consultation Under Section 106 of the National Historic Preservation Act for the Proposed TransCanada Keystone XL Pipeline Proposed to Extend from Phillips, MT (the Border Crossing) to Steele City, NE, 77 Fed. Reg. 36,032, 36,033 (June 15, 2012). On November 16, 2012, a bipartisan group of senators requested a meeting with President Obama, urging that the administration approve the project once a new route through Nebraska is settled. Lynn Garner, Senators Press Obama
The decision on the presidential permit application appears likely to occur soon. Until then, opponents and proponents are likely to continue to square off, with each side presenting sound bites and platitudes. The conversation about the merits of the project, however, deserves a balanced discussion that focuses on the relationship of the project to U.S. policies in energy, environment, economics, defense, and international trade.

III. THE CANADIAN TAR SANDS

International pipelines present unique challenges for any individual country’s energy policy, and the proposed Keystone XL project is emblematic of many of these challenges. At the outset, Canada’s energy or environmental policies could change and affect that country’s long-term supply of oil. The Canadian federal government presently endorses increased development of the country’s oilsands region. The oilsands may contain in the range of twenty-seven billion cubic meters of crude oil reserves, second only to the reserves located in Saudi Arabia.

Yet American protestors to the Keystone XL pipeline are not alone in their campaign to halt or limit further development. Both in Canada and the United States skeptics warn that development presents environmental risks, including: greenhouse gas emissions,

\[\text{to Approve Keystone Pipeline Once Nebraska Selects New Route, DAILY ENV'T (BNA), Nov. 19, 2012, at A-4.}\]

36. See Mark Kennedy & Jordan Press, “Major Transformations” Coming to Canada’s Pension System, Harper Tells Davos, NAT’L POST (Jan. 26, 2012), http://news.nationalpost.com/2012/01/26/major-changes-coming-to-canadas-pension-system-harper-says-in-davos-speech/ (reproducing the text of a speech by Canadian Prime Minister Stephen Harper to the World Economic Forum). Prime Minister Harper noted, “[W]e will make it a national priority to ensure we have the capacity to export our energy products beyond the United States, and specifically to Asia. In this regard, we will soon take action to ensure that major energy and mining projects are not subject to unnecessary regulatory delays—that is, delay merely for the sake of delay.” Id. The Canadian government, moreover, endorsed relaxing regulatory restrictions to accelerate production. Juliet Eilperin, Canadian Government Overhauling Environmental Rules to Aid Oil Extraction, WASH. POST (June 3, 2012), http://www.washingtonpost.com/national/health-science/canadian-government-overhauling-environmental-rules-to-aid-oil-extraction/2012/06/03/gJQAyxx2BV_story.html. Between 1995 and 2004, Alberta’s crude bitumen production more than doubled, to roughly 1.2 million bpd, and since 2004 that number has increased annually by approximately the size of one large oilsands mine. See NATHAN LEMPHERS & DAN WOYNILLOWICZ, THE PEMBINA INST., IN THE SHADOW OF THE BOOM: HOW OILSANDS DEVELOPMENT IS RESHAPING CANADA’S ECONOMY 13 (2012), available at http://www.pembina.org/pub/2345. The amount of production is expected to reach about 3.5 million bpd by 2020. Id. at 14.

impacts to land, water and wildlife, toxicity of tailing ponds, and effects on the First Nations. A recent study also suggests that oil sands development is reshaping the Canadian economy, creating clear winners and losers, generating imbalances among regions, and potentially adversely affecting the country’s manufacturing sector. More-

38. See LINDSAY FISCHER & NATHAN LEMPHERS, FACT SHEET: KEYSTONE XL IN CONTEX T: OIL SANDS AND ENVIRONMENTAL MANAGEMENT 2-4 (2011), available at http://www.pembina.org/pub/2266; GOSSELIN ET AL., supra note 38, at 5-6 (discussing the various issues discussed further in the report); see also LEMPHERS & WOYNILLOWICZ, supra note 36, at 13-14 (discussing some of the environmental impacts of Canadian petroleum development). The Canadian Energy Research Institute suggests “it is not unreasonable to assume that within a generation, emissions from the oil sands may reside within the 100-200 M/yr range.” Zoey Walden, S.O.S.—“Silent” Oil Sands, CERI COMMODITY REP.—CRUDE OIL, Apr. 2012 (suggesting that emissions are not at high comparatively). But emissions from oil sands extraction and upgrading may triple or quadruple the equivalent emissions from typical oil development. See How Much of an Environmental Bad Guy Are the Alberta Oil Sands, HUFFINGTON POST (Apr. 30, 2012), http://www.huffingtonpost.ca/2012/02/29/oil-sands-study_n_1310038.html. Conversely, a study by Rice University professors suggests that importing oil from the Canadian tar sands might somehow decrease emissions if one assumes that those tar sands would be produced regardless of United States import policy. Dagobert Brito & Robert F. Curi, Allocation of Carbon in the Production of Liquid Fuels and Electricity in the United States 28-29 (June 8, 2012) (unpublished manuscript) (on file with James A. Baker III Institute for Public Policy), available at http://bakerinstitute.org/publications/B1-pub-BritoCuriAllocationOfCarbon-060812.pdf. The United States’ environmental review of the Keystone XL Pipeline disclaimed any pretense of examining the impacts of the pipeline in Canada, although the State Department summarized those effects as analyzed by the National Energy Board of Canada. U.S. DEP’T OF STATE, supra note 14, at ES-22 (“An evaluation of the impacts resulting from extraction of crude oil from the oil sands in Canada is outside the scope of analysis required under [NEPA].”). The oil industry has launched a website designed to respond to allegations against tar sands development. See About, OILSANDSFACTCHECK.ORG, http://oilsandsfactcheck.org/about (last visited Aug. 28, 2012) (discussing the website to deliver accurate information about oil sands development and listing major participants). Several prominent scientists urged the Supplemental Environmental Impact Statement for the Keystone proposal should include closer examination by the Obama administration into potential greenhouse gas emissions from the project. See Top Climate Scientists Urge Clinton to Fully Consider Keystone XL’s Impact on Climate Change, 350.ORG (July 17, 2012), http://350.org/2012/keystone-xl-hillary-clinton/. On August 8, 2012, the ranking member of the House Committee on Energy and Commerce, Henry A. Waxman, similarly urged the administration to consider the climate impacts of the project. Letter from Henry A. Waxman to Kerri-Ann Jones, Assistant Sec’y for Oceans and Int’l Envtl. and Scientific Affairs (Aug. 8, 2012) (on file with the author), available at http://democrats. energycommerce.house.gov/sites/default/files/documents/Jones%20Transmission%20Revised%20Keystone%20XL%20Pipeline%202012.8.8.pdf.

over, this entire pipeline development is premised upon the price of oil remaining sufficiently high over the long-term to warrant the cost of extracting the bitumen—a quite heavy and dense form of petroleum, more difficult to refine than other types. While undoubtedly a host of variables may influence the amount of future oilsands development, these variables seem more stable than the geopolitical variables affecting imports from the Persian Gulf or even South America. Also, whether or not TransCanada ultimately builds the Keystone XL pipeline may not dramatically affect the amount of crude imported from Canada.40

Next, oil has been a global commodity for quite some time, and the United States must constantly monitor and predict the global market when assessing the viability of any international oil pipeline. After politics delayed the Keystone XL pipeline, the Canadian government signaled an interest in exporting its oilsands to other markets, principally Asia.41 To do so would require additional pipelines going either west (such as the Enbridge Northern Gateway and Kinder Morgan Trans Mountain), or east (such as the Enbridge Trailbreaker), or new rail transport facilities.42 While these projects face opposition

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41. See Steve LeVine, With Its Long U.S. Oil Relationship on the Rocks, Canada Goes Looking for Other Suitors, E&E News (May 29, 2012), http://www.eenews.net/energywire/2012/05/29/archive?terms=Levine. If the European Commission, tasked with assigning a fuel ranking (carbon intensity) for transportation fuels, assigns a higher ranking to the Canadian oilsands than other crude, it would adversely affect any European demand for the product. See Christa Marshall, E.U. Postpones Vote on Canadian Oil Sands, E&E News (Apr. 23, 2012), http://www.eenews.net/climatewire/2012/04/23/archive/5?terms=Marshall. The Commission apparently accepts a study suggesting that the Canadian crude is up to 22% more carbon intense, while a Canadian endorsed study suggests it is only roughly 12% more carbon intense than regular crude. See Barbara Lewis et al., Insight: Canada’s Oil Sand Battle with Europe, Reuters (May 10, 2012), http://www.reuters.com/article/2012/05/10/us-oil-sands-idUSBRE84900L20120510. Chinese interest in the oilsands does not necessarily translate into China’s willingness to import that oil. See Nathan Lemphers, The Pembina Inst., Briefing Note: Challenges to Exporting Canadian Oilsands Crude Overseas 4-5 (2012), available at http://www.pembina.org/pub/2317.

42. LeVine, supra note 41. Enbridge, Inc., proposes constructing a $5.5 billion, 700-mile plus pipeline from Alberta to British Columbia. Id. Enbridge, Inc., has filed an application to reverse the flow of Enbridge Line 9 and the Montreal/Portland line, which would allow the company to transport oil to the east coast, but several environmental organizations actively oppose this proposal. See Natural Res. Def. Council, Going in Reverse: The Tar Sands Threat to Central Canada and New England 4 (2012), available at http://maine.sierraclub.org/Tar%20Sands/Going-in-Reverse-report.pdf; see also Nathaniel Gronewold, TransCanada Still Considering Pipeline to Canada’s East, E&E News (Nov. 14, 2012), http://eenews.net/view/2012/11/14/6. Kinder Morgan proposed a $4.1 billion modification to its Trans Mountain Project, carrying crude to Vancouver, British Columbia. Christa Marshall, Oil Sands Pipeline to Ca-
and appear unlikely for at least another five to ten years, the United States should not ignore world markets and demand for Canadian crude.

Together, Canadian interests and global oil markets establish the initial framework for examining the continued availability of oil from the Canadian tar sands. But this framework merely establishes the preliminary conditions necessary to explore whether the Keystone XL pipeline project is in the “national interest.”

IV. CLEAR APPRECIATION FOR U.S. INTEREST

The President has charged the State Department with determining whether the Department believes that a particular international pipeline is in the “national interest.” To date, though, little about the State Department’s review suggests any willingness to explore the details of how to merge energy policy and environmental policy. The State Department also has not suggested a specific role for Canadian oil or the Keystone XL pipeline in achieving policy objectives. The Obama administration adopted an “All of the Above” energy strategy; heralding, for instance, increased development from the Offshore Continental Shelf (OCS).

In his January 2012 State of the Union Address, President Obama announced that his administration was moving forward with opening approximately seventy-five percent of our nation’s offshore resources for development, and that the next lease sale would make thirty-eight million acres available for exploration, resulting in the production of one billion barrels of oil and about four trillion cubic feet of natural gas. Then, in the summer of 2012, the Obama administration released the next five-year plan for leasing oil and gas resources in the OCS, opening up considerable amounts of additional acreage to oil and gas development.

nada’s West Is Downsized, E&E News (May 24, 2012), http://eenews.net/climatewire/2012/05/24/6.
43. See LEMPHERS, supra note 41, at 1.
dent Obama has called for a thirty-three percent reduction of oil imports by 2025. 48 The executive orders leave undefined what constitutes the “national interest.” Also, which departments are institutionally capable of assessing energy, environmental, economic, social, and foreign policy considerations? The State Department acknowledges that its review “involves consideration of many factors, including energy security; environmental, cultural, and economic impacts; foreign policy; and compliance with federal regulations.” 49 The Department declared that Phase I of the Keystone pipeline system, which transports Canadian crude from Hardisty, Alberta to U.S. markets in the Midwest at Wood River and Patoka, Illinois, was in the “national interest.” 50 The 2008 State Department’s Record of Decision (“ROD”) on Phase I contained little in the way of detailed analysis, concluding that the project was in the national interest because:

- It increases the diversity of available supplies among the United States’ worldwide crude oil sources. Increased output from the WCSB can be utilized by a growing number of refineries in the United States that have access and means of transport for these increased supplies.

- It shortens the transportation pathway for a portion of the United States crude oil imports. Crude oil supplies in Western Canada represent the largest and closest foreign supply source to domestic refineries that do not require marine transportation.

- It increases crude oil supplies from a source region that has been a stable and reliable trading partner of the United States and does not require exposure of crude oil in high seas transport and railway routes that may be affected by heightened security and environmental concerns.

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advertised, some conservative members in Congress would like additional offshore areas open to exploration and development. See Phil Taylor, House Votes on Dueling Five-Year Leasing Plans, E&E NEWS (July 25, 2012), http://www.eenews.net/eenewspm/2012/07/25/archive/1?terms=Taylor.


It provides additional supplies of crude oil to make up for the continued decline in imports from several other major U.S. suppliers.\textsuperscript{51}

TransCanada's pending presidential permit application asserts that its new pipeline proposal from Canada to the United States satisfies the "national interest" standard for a variety of reasons similar to the 2008 determination. The primary purpose and need, according to the company's May 2012 application, is to "provide the infrastructure necessary to transport WCSB heavy crude oil from the border with Canada to delivery points in the Gulf Coast region . . . in response to the market demand of refineries" in that region.\textsuperscript{52} The WCSB heavy crude delivered to these refineries would replace declining crude from other less reliable foreign sources.\textsuperscript{53}

But how the State Department should sift, weigh, or balance each of the many potential "interests" as favoring the "national interest" is neither art nor science. This is particularly true because, unlike other similar determinations, insufficient precedent exists to establish a pattern or practice. Undoubtedly the principal consideration ought to include an acute appreciation for, and prediction about, the amount of potential crude oil consumption over the life of the pipeline, the amount of existing transportation capacity, and the amount of otherwise available U.S. production over the life of the proposed line. The consideration should also include other possible replacement fuels with less greenhouse gas emissions, U.S. jobs, revenue, and the potential downstream needs of refineries. The following sections, consequently, review these important issues and further suggest that the Department of Energy rather than the State Department might be better suited to making the required determination.

A. Energy Security and American Consumption

Until recently, the geopolitics of oil served as a gloss, coloring conversations about the future of fossil fuels and climate change. Not

\textsuperscript{51} Id. at 22. Interestingly, the 2008 determination relied upon EIA's then prediction that the United States would consume approximately 26.9 million bpd by 2030. See id. at 7.

\textsuperscript{52} TransCanada Keystone Pipeline, L.P., supra note 16, at 14. The application identifies the Gulf Coast refineries' need to replace declining supplies from Venezuela and Mexico. Id. at 31.

\textsuperscript{53} Id. at 14-15. TransCanada emphasizes the safety of the transportation mode (via pipeline), the stability of Canada as a trading partner, and "by expanding its crude oil trade relationship with Canada—rather than with other foreign crude oil suppliers—the United States is in a far better position to work to meet overall environmental and energy security goals and broader foreign policy objectives, including a comprehensive strategy to address climate change." Id. at 24. Also, the application asserts that existing presidential permits confirm the national interest being served, such as the economic benefits projected to accrue to the United States. Id. at 14-38.
only has reducing oil consumption been necessary to address rising greenhouse gas emissions, but since the 1950s scholars have discussed it as an aspect of energy security in a world where warnings about peak oil—the maximum level of potential output of a finite resource—have dominated.54 For roughly the last seventy years, oil has been infused into the United States’ economy. Around World War II, the country began consuming more oil than it produced. Yet until 1974 the United States was the leading oil producer in the world.55 Since then, the 1970s energy crisis and the prediction about peak oil have infected most energy policy dialogues: our dependence on Middle Eastern oil, for instance, became perceived as threatening our national security.56 Former United States Energy Information Administration (“EIA”) Administrator Jay E. Hakes observed that “[t]alk of energy

54. Writing in 1948, Eugene Rostow observed, “Oil is more than one of the largest of American Industries, in terms of money, steel and men engaged in producing and selling it. Oil is an essential weapon of modern war, and oil policy must be judged ultimately from the point of view of national security.” EUGENE V. ROSTOW, A NATIONAL POLICY FOR THE OIL INDUSTRY xi (1948). In the 1940s, the United States had 400,000 wells and 600 refineries, with Texas and California accounting for over 50% of U.S. oil production. Id. at 9-11. From 1947 to 1978, annual petroleum production increased by 60%, with Alaska providing a major contribution after 1970. James L. Cochrane & Gary L. Gribenstro. U.S. ENERGY: A QUANTITATIVE REVIEW OF THE PAST THREE DECADES, IN ENERGY POLICY IN PERSPECTIVE: TODAY’S PROBLEMS, YESTERDAY’S SOLUTIONS 685, 692 (Crawford D. Goodwin ed., 1981).


independence has traditionally focused on avoiding reliance on insecure foreign fuels.”

When former Secretary of the Interior James Watt accelerated OCS leasing in the 1980s, he opined that it would be easier for presidential administrations:

[To explain to the American people why we have oil rigs off our coast than it would be to explain to mothers and fathers of this land why their sons are fighting on the sands of the Middle East as might be required if the policies of our critics were to be pursued.]

The Canadian tar sands illustrate how different the world picture looks today. To begin with, few contemporary articles warn about peak oil; instead, the focus has shifted toward debating whether “enormous supplies of oil will arrive in world markets in the next 10 years.” The tar sands, after all, contain roughly 170 billion barrels of technically recoverable reserves. Also, unlike in the 1970s, a measure of stability in the international oil markets has become a more dominant concern in OPEC nations. Perhaps even more important, however, is the amount of proven oil reserves that may be economically recoverable from countries, like the United States, that are not in the Middle East because of rising oil prices.

Indeed, while at the

58. Id. at 75.
60. Gosselin et al., supra note 37, at 1.
62. See Rahim, supra note 59 (noting that the “center of gravity” may shift “from the Middle East to three new players: The United States, Canada and Brazil”). Brazil, in particular, has become a principal energy consumer as well as exporter in the last several years. See generally Aditya Malhotra, Brazil’s Oil Future: The New (Big) Kid on
apex of the energy crisis of the 1970s a significant percentage of U.S. oil imports arrived from the Middle East or OPEC, today the majority of our imports are from North America, particularly Canada.63

The mantra of energy security and independence, therefore, ought not obscure the necessary judgment about the amount of oil the United States will need, or when it will need that oil. Doing so is often problematic because a parade of variables affects how much oil the United States consumes annually. The EIA reports that the United States consumed approximately 19.2 billion bpd in 2010, predicting that the number may climb to about 19.9 billion bpd by 2035.64 Technological developments and ever-progressing policies, however, constantly alter future predictions.

The vast bulk of petroleum products, for instance, are used in the transportation sector; yet aspects of that sector are evolving and may well change dramatically by 2035. Already the Obama administration and the automobile industry have agreed to more fuel-efficient vehicles. Automobile manufacturers have accepted a Corporate Average Fuel Economy (“CAFE”) standard of 54.5 miles per gallon for passenger cars by 2025.65 Manufacturers are already producing more fuel-efficient vehicles,66 and may well out-pace the current and proposed CAFE standards. The amount of vehicle-miles driven also appears to be trending downward, particularly with escalating gasoline prices, the rising age of average drivers, the possibility of more available mass transit,67 the majority of the population now living in urban cen-

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64. See U.S. Total Crude Oil and Products Imports, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/dnav/pet/pet_move_impctus_a2_nus_ep00_im0_mbbl_m.htm (last visited Oct. 9, 2012) (listing U.S. imports of total crude oil and products from Canada as the largest individual source).


66. See Julia Pyper, Gas Mileage of New Vehicles Hits Record High as Gas Prices Soar, E&E News (Mar. 8, 2012), http://www.eenews.net/climatewire/2012/03/08/archive/?terms=Pyper (reporting on University of Michigan Transportation Research Institute report).

67. See Julia Pyper, High-Speed Rail Is En Route to U.S. and Bringing Carbon Reductions, LaHood Says, E&E News (July 13, 2012), http://www.eenews.net/climatetwire/2012/07/13/archive/?terms=Pyper (reporting on U.S. and international railroad experts at the 8th World Congress on High Speed Rail).
ters, and an emphasis on smart growth development. Relatively, fossil fuel consumption is likely to diminish as more and more communities embrace the localism and "locavore" movement. In March 2012, Daniel Yergin indicated that gasoline demand peaked in 2007 and has since fallen. EIA's latest projections for its base (or "reference") case, moreover, only assume that new vehicle emission and fuel consumption standards will be implemented for medium and heavy duty vehicles, and not the proposed standards for light duty vehicles.

The effort to reduce petroleum consumption in the transportation sector is becoming a prominent concern for the airline industry as well. The European Union ("E.U."), for instance, has aggressively promoted reducing greenhouse gas emissions from that industry, and the industry has now focused on the integration of biofuels into their operations. These efforts to reduce petroleum consumption merge with a suite of mandates, incentives, and tax policies, all of which are


69. See generally Sam Kalen, Agriculture, Food, and Environmental Policy, 26 Nat. Resources & Envtl., Summer 2011, at 3, 6-7 (discussing the impact of the two movements on energy use).


71. U.S. Energy Info. Admin., supra note 64, at 6, 21. EIA's acting Administrator, Howard Gruenspecht, noted, "If you put those [light duty vehicles] into the mix, we would expect a somewhat steeper decline in overall liquid fuels demand and gasoline demand in particular." Ydstie, supra note 70. EIA's projections suggest a possible reduction of over 1.5 million bpd. U.S. Energy Info. Admin., supra note 64, at 21.


designed to promote a widespread marketplace for biofuels and, consequently, further affect the demand for petroleum products.74

B. DOMESTIC AND FOREIGN PETROLEUM PRODUCTION

Yet to the extent that we can predict—however imperfectly—the amount and timing of U.S. oil consumption, the concomitant inquiry should examine where the United States will obtain sufficient oil reserves to carry it into the future. Unfortunately, predicting U.S. annual oil production is as much art as science. After all, few anticipated that “[s]hale oil [would be] rewriting the United States’ decades-old energy storyline of falling crude production and rising import dependence.”75 EIA suggests that a considerable portion of this increase is from onshore tight oil production (i.e., crude produced from low-permeability sandstone, carbonate and shale formations) in places like


[T]o the extent that ethanol displaces petroleum in the gasoline market, our gasoline supply will be less reliable than if it were entirely based on petroleum. The reasons are: recurring unreliable weather adversely affecting corn production; the nation’s existing high level of protection against petroleum-supply interruptions; and the counterintuitive fact that there has never been an interruption of as much as 16 percent of world petroleum supplies lasting as long as a year.


75. ARGUS MEDIA, ARGUS U.S. Shale Oil Special Report 1 (2012), available at http://www.argusmediagroup.com/Petroleum/Crude/-/-/media/Files/PDFs/Mktng/Argus%20US%20Shale%20Oil%20Special%20Report.ashx. This increased production was so unpredictable that Argus reported “infrastructure is struggling to catch up and using railroads, barges and trucks to move crude has become commonplace in markets that had, for years, been confined to pipelines.” Id. Others, however, warn that large-scale oil shale production might be years off. See Margaret Kriz Hobson, Big Money Being Spent to Tap into Reserves, E&E News (Apr. 9, 2012), http://www.eenews.net/public/energywire/2012/04/09/2 (quoting RAND Corporation senior policy researcher James Bartis that one million barrels of oil per day from oil shale reserves might be possible in 20 years).
Wyoming, Utah, Colorado, and the Bakken, Eagle Ford, Austin Chalk, and Avalon formations.\textsuperscript{76} EIA also adds, however, that “offshore crude oil production in the Gulf of Mexico trends upward over time, fluctuating between 1.4 and 2.0 million barrels per day, as new large development projects are started.”\textsuperscript{77}

The EIA reported that, “[b]y 2020, nearly half of the crude oil America consumes will be produced at home, while 82% will come from this side of the Atlantic.”\textsuperscript{78} The EIA further projects a much larger percent increase from its previous estimate on the amount of U.S. crude production, suggesting that the United States will likely increase production from 5.5 million bpd in 2010 to 7.5 million bpd in 2019.\textsuperscript{79} For the first time in decades, moreover, the Alaskan coast appears poised to emerge again as a significant source of oil. Shell Oil Company, the U.S. subsidiary of Royal Dutch Shell, recently described its new activities in Alaska as possibly becoming a “game changer.”\textsuperscript{80}


\textsuperscript{79} U.S. Energy Info. Admin., supra note 77, at 1. EIA projects a decline after 2020, but adds that production should remain above 6.1 million bpd through 2040. Id.

\textsuperscript{80} Zaz Holland, Shell Poised for Alaska Prospects, ALASKA BUS. MONTHLY (June 2012), http://www.akbismag.com/Alaska-Business-Monthly/June-2012/Shell-Poised-for-Alaska-Prospects/ The New York Times reported that “Shell’s Arctic quest has consumed seven years and $4 billion over two presidential administrations, overcoming a raft of environmental concerns, the opposition of a wily and unpredictable Inupiat Eskimo leader and the fallout from the BP disaster.” John M. Broder & Clifford Krauss, New and Frozen Frontier Awaits Offshore Oil Drilling, N.Y. Times (May 23, 2012), http/
Also, while the United States appears marginally detached from discussions about Arctic oil,\textsuperscript{81} this may change; and the Obama administration has expressed interest in adjacent oil and gas production elsewhere when it signed a memorandum with Mexico to promote enhanced cross-boundary resource development.\textsuperscript{82}

C. Petroleum Transportation and Refining Capacity

Next, a national interest determination ought to consider the need for additional pipeline capacity apart from the Canadian crude that the Keystone XL line would transport. With increasing production from new onshore oil plays, particularly in the Bakken formation, some observers suggest that the "existing pipeline infrastructure is unable to handle the increased crude supply from onshore sources in Canada and the shale formations, but projects to build additional pipelines are moving at a slow and arduous pace."\textsuperscript{83} Other analysts, however, "say there is enough excess pipeline capacity from Canada to the United States to last at least until 2016 and perhaps longer."\textsuperscript{84}


\textsuperscript{83} Argus Media, \textit{supra} note 75, at 1.

\textsuperscript{84} Muñoz, \textit{supra} note 39.
But the issue is not limited to existing pipeline capacity from Canada to the United States; rather, the issue extends to concerns about insufficient capacity to carry oil into Gulf Coast region refineries. Oil from the Bakken formation has already outstripped pipeline capacity; and one effect of finding new oil shale plays in areas previously under-developed is insufficient transportation infrastructure. Enbridge, Inc.’s cross-border pipeline system is already engaged in a dispute about whether it can be forced to link up with a proposed pipeline from the Bakken formation, and other producers have accused Enbridge of reserving capacity for tar sands oil rather than oil from the Bakken play.

TransCanada maintains that its proposed pipeline would “provide[e] critically important market access to developing domestic oil supplies in the Bakken formation in Montana and North Dakota.” The southern leg alone, for instance, could transport 830,000 bpd of crude from Cushing, Oklahoma to Gulf Coast refineries. Following TransCanada’s decision to separate the southern segment,

85. TransCanada Keystone Pipeline, L.P., supra note 16, at 16. Even TransCanada’s pending presidential permit application suggests that existing capacity might be sufficient to ship crude across the U.S.-Canadian border in the short and medium term, but the issues of long term capacity and the ability to move the product to the Gulf Coast remain unclear. See id.

86. See PARFOMAR ET AL., supra note 9, at 22, 23 (explaining that “[t]ransport options to carry crude from the Midwest to the Gulf Coast are limited . . . . Keystone XL aims to alleviate two potential bottlenecks,” one between Canada and the United States and the other, arguably more serious one, between the Midwest and Gulf Coast). Enbridge’s acquisition of the existing Seaway pipeline and interest in reversing the flow of that line may offer another option for moving oil (possibly up to 400,000 bpd) from the Midwest to the Gulf Coast. Id. at 23.


91. Id. at 3. The southern segment will transport domestic crude, and the attempt to halt the permitting for this segment, to date, has been unsuccessful. See Sierra Club, Inc. v. Bostick, No. CIV-12-742-R, 2012 WL 3230552, at *8 (W.D. Okla. Aug. 5, 2012).
EIA’s latest projections predictably assume that, at least, the pipeline capacity constraints between Cushing and the Gulf Coast will be eliminated.92

Yet the Federal Energy Regulatory Commission (“FERC”), not the State Department, regulates domestic oil pipelines as common carriers and FERC’s policies toward oil pipelines have yet to crystallize.93 While FERC generally abhors allowing guaranteed service for certain pre-committed shippers, it permits pipelines to offer shippers firm (i.e., committed) service if the pipeline has conducted a sufficiently open public process for all prospective shippers and the pipeline has not fully allocated all of its capacity to firm shippers.94 Also, the State Department’s ability to assess available pipeline capacity is further constrained by the Mineral Leasing Act,95 because oil pipelines crossing federal public lands are subject to a separate, independent common carrier obligation.96 It is not readily apparent, therefore, precisely how much Bakken formation crude oil the Keystone XL Pipeline actually will transport down to the southern segment and ultimately to Gulf Coast refineries. In its 2008 determination,

(denying the Sierra Club’s motion for a temporary restraining order and preliminary injunction).


93. Common carriers must provide open access to their system, a common law concept embodied in certain statutes. In a related area, the Department of Energy follows FERC policy regarding this open access concept. A similar issue surfaces for cross-border electric energy projects, where the Department of Energy applies U.S. policy regarding open access and non-discrimination. See Application for Presidential Permit; Champlain Hudson Power Express, Inc., 75 Fed. Reg. 10,229, 10,229 (Mar. 5, 2010) (providing notice for proposed transmission line from Canada to the U.S.). Presumably, the State Department could follow the same approach for oil pipelines, recognizing that oil pipelines in the United States already are subject to certain obligations. High Prairie Pipeline, LLC is attempting to persuade the State Department that such conditions might be necessary for cross-border pipelines. Letter from Pamela J. Anderson, Attorney, Perkins Coie LLP, to Douglas Kramer, Deputy Dir., Bureau of Energy Res. for the Dep’t of State (July 31, 2012) (on file with author), available at http://insideclimate news.org/sites/default/files/StateDepartmentApplicationforAmendmenttoPresidential PermitsINSIDECLIMATENEWS.pdf; see also High Prairie Pipeline, LLC v. Enbridge Energy, Limited Partnership; Notice of Complaint, 77 Fed. Reg. 31,347 (May 25, 2012). The company also has sought relief from FERC. See High Prairie Pipeline, ENBRIDGE ENERGY IS DISCRIMINATING AGAINST AMERICAN ENERGY BY USING MONOPOLY POWER TO ADVANCE CANADIAN TAR SANDS OIL INTERESTS 2 (2012), available at http://www.sbpipeline.com/docs/Enbridge%20Discrimination%20Case%20Brief.pdf.

94. See TransCanada Keystone Pipeline, LP, 125 FERC 61,025, 61,075 (2008); see also TransCanada Keystone Pipeline, LP, 131 FERC 61,139, 61,591-92 (2010).

95. Ch. 85, § 28, 41 Stat. 437 (codified at 30 U.S.C. § 185(r) (1920)).

consequently, the State Department simply noted “Keystone also represents that the remaining pipeline capacity (95,000 bpd out of 435,000 bpd) will be utilized by non-contract shippers at the tariff rate approved by” FERC.97

The last significant aspect of a national interest determination for TransCanada’s proposal should be the refineries’ asserted need for the northern segment of the Keystone XL pipeline. The Gulf Coast refineries provide roughly half of U.S. refining capacity, or approximately 8.4 million bpd (in 2009), with about 5.1 million bpd from imports.98 Of that imported amount, several million bpd is from two top importing countries, Mexico and Venezuela, and that amount is expected to decline to less than a million bpd by 2020.99 TransCanada accordingly suggests that the primary purpose of the project is to “provid[e] a secure and reliable source of Canadian crude oil to meet the demand from refineries and markets in the United States.”100

This, of course, presents a host of issues. To begin with, quite possibly one of the most critical documents for evaluating the “na-

97. U.S. DEP’T OF STATE, supra note 50, at 8. That amount roughly corresponds to the amount TransCanada recently suggested could move through the system once an “on-ramp” is constructed “allowing drillers in Montana’s and North Dakota’s swaths of the high-yielding Bakken Shale to feed their product into the pipeline.” Mont. Governor Pushed Hard for Bakken Link, E&E News (July 20, 2012), http://www.eenews.net/energywire/2012/07/20/6. Some estimates suggest that this represents anywhere between one-fourth to one-tenth of the amount of production from the Bakken formation. See EnSys Energy, supra note 40, at 19 (noting that Bakken field production was around 400,000 bpd in 2010 and was projected to climb to between 800,000 and 1 million bpd by 2105). Production from the Bakken formation in Spring 2012 exceeded 600,000 bpd. See JOHN STAUB, U.S. ENERGY INFO. ADMIN., EMERGING OIL & GAS SUPPLIES: FUTURE PROSPECTS FOR OIL & GAS PRODUCTION 3 (2012), available at http://www.eia.gov/pressroom/presentations/staub_06272012.pdf. As of 2010, pipeline and rail capacity could transport approximately 450,000 bpd and, if all the existing pipeline projects were constructed, the amount of pipeline capacity alone could rise to approximately 740,000 bpd. EnSys Energy, supra note 40, at 20. At the time of the Keystone XL EIS, however, the analysis of how much Bakken crude actually would flow through the pipeline was uncertain. See id. at 21.


99. Id. at 15-16. The State Department’s 2011 EIS includes this projection, and it based its projection on the EnSys 2010 report prepared for the DOE. U.S. DEP’T OF STATE, FINAL ENVIRONMENTAL IMPACT STATEMENT: KEYSTONE XL PROJECT 9 (2011), available at http://keystonepipeline-xl.state.gov/documents/organization/182013.pdf; see also EnSys Energy, supra note 40, at 99, 110 (imports from countries drops to about 0.9 million bpd in 2020 and slightly less thereafter; imports from countries drops to about 0.8 million bpd by 2020); U.S. DEP’T OF STATE, supra at 14.

tional interest" was prepared under the auspices of the Department of Energy, not the State Department. The Department of Energy commissioned EnSys Energy, a private firm, to prepare the necessary assessment “in support of the Department of State as a component of its environmental review of the [Keystone XL] pipeline and its review of the request for a Presidential Permit.”

Employing the World Oil Refining Logistics & Demand (WORLD) model, the firm concluded that either decision on the project would “not of itself have any significant impact on: U.S. total crude runs, total crude and product import levels or costs, global refinery CO2 or life-cycle GHG emissions.” EnSys further concluded that “[p]roduction levels of oil sands crudes would not be affected by whether or not the [Keystone XL] was built.” But EnSys indicated that additional pipeline capacity to the Gulf Coast is necessary to satisfy demand, even for the long term, and that “the ability of [Keystone XL]—or otherwise alternative projects—to transport heavy WCSB crudes to the Gulf Coast would satisfy incentives for Gulf Coast refiners to maintain supplies of heavy crudes at a time when volumes from traditional suppliers, notably Mexico and Venezuela, are continuing to decline.”

V. CROSS-BORDER OIL PIPELINES AND THE NATIONAL INTEREST?

Canadian tar sands development undoubtedly will remain politically charged. At the same time the dire need to reduce worldwide greenhouse gas emissions from fossil fuels will remain incontrovertible. But neither naivété nor political pandering should influence national interest determinations for international oil pipelines. As much as the world’s fate demands reducing greenhouse gas emissions, the United States cannot, for instance, immediately slash its oil consumption in half. The country will continue to develop and import oil. The United States can and should, however, assess the relative environmental consequences of its decision to import more tar sands crude rather than obtaining those resources elsewhere. The greenhouse gas emissions resulting from any decision on the project deserve analysis, including whether the net effect of any United States decision merely transfers those emissions to another attributable country. We can

101. EnSys Energy, supra note 40, at 1, 10.
104. Id.
105. Id.
and should appreciate—with as much foresight as possible—our oil consumption needs, alternative sources for oil and the cost and geopolitics associated with those possible sources, pipeline capacity constraints, as well as refinery needs and the relative contribution toward the nation’s economy. The question is, fundamentally, whether this should be the function of the State Department.

The State Department arguably lacks the resources and breadth of expertise best suited for assessing the most salient aspects of a national interest determination. The State Department, admittedly, is best suited to assess geopolitics and border security, but that expertise seems less important than the array of other factors that comprise the “national interest.” The Department of Energy, by contrast, appears institutionally capable of providing a critical review of those issues: consumption, production, pipeline capacity and refinery need. After all, the Department of Energy similarly determines whether a particular proposed project for the export of liquefied natural gas (“LNG”) serves the national interest.\textsuperscript{106} The Department of Energy also shares responsibility with FERC for approving these LNG export projects. In doing so, the Department of Energy can assess the impact of LNG exports on U.S. consumers,\textsuperscript{107} much like the State Department would be performing for the impact of crude oil imports from Canada when assessing a cross-border pipeline. Indeed, for information about U.S. consumption, production, pipeline capacity and refinery needs, the State Department is dependent upon either the Department of Energy or the Department of Energy’s review of information supplied to the State Department by others. To the extent that the United States expects an energy policy grounded in goals and objectives, informed by current detailed assessments, and freed from simplistic sound bites, the Department of Energy at least is tasked with the necessary expertise.


While it is beyond this Article’s purpose to proffer a suggestion for whether the proposed international Keystone pipeline satisfies the “national interest,” we can safely assume that, until the institutional structure for reviewing such proposals is transformed into a more meaningful process, politics and rhetoric rather than a transparent and sound energy policy will continue to be the norm.